



DEPARTMENT OF THE NAVY
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WASHINGTON DC 20350-2000

OPNAVINST 3140.24G
N2N6E
9 Aug 2019

OPNAV INSTRUCTION 3140.24G

From: Chief of Naval Operations

Subj: ADVERSE AND SEVERE WEATHER WARNINGS AND CONDITIONS OF
READINESS

Encl: (1) Common Weather Warning Terminology and Criteria
(2) DoD Conditions of Readiness

1. Purpose. To facilitate information on Department of Defense (DoD) and the National Weather Service (NWS) terminology and severe weather criteria used for determining and setting conditions of readiness for the Department of the Navy (DoN) activities and commands in advance of adverse or severe weather. This instruction is a complete revision and should be reviewed in its entirety. Summary of changes in this revision per subparagraphs 1a through 1e.

- a. DoD deletion of tsunami and seiche warning.
- b. NWS deletion of storm surge warning.
- c. NWS addition of the following new terminology: Wind advisory, extreme wind advisory, winter weather advisory, winter storm advisory, blizzard warning, freeze watch and freeze warning.
- d. NWS definition changes: Small craft advisory; hurricane force wind warning; tropical storm watch and warning; hurricane watch and warning; severe thunderstorm watch and warning; tornado watch and warning; winter storm watch and warning; flash flood watch and tsunami warning.
- e. NWS terminology changes: Freezing precipitation advisory to freezing rain advisory; freezing precipitation warning to ice storm; coastal flood watch and warning to flood watch; flood warning; and flood advisory.

3. Cancellation. OPNAVINST 3140.24F.

4. Applicability. The weather warning criteria and terminology defined in this instruction are applicable at all DoN activities and commands.

5. Action. Commanders and commanding officers must:

- a. use all available weather information to minimize potential loss of life and damage to property associated with hazardous weather.
- b. include precautionary measures and planned rapid responses in local directives to ensure safety of personnel and property when warnings of destructive weather are received.

6. Conditions and Criteria. Adverse or severe weather poses a significant threat to military personnel, ships aircraft and installations. Adequate and timely weather warnings, combined with prompt and effective action by commanders will minimize loss, damage, and help ensure the safety of personnel. Commander, Naval Meteorology and Oceanography Command and Marine Corps weather activities are responsible for the timely dissemination of weather warnings and advisories to naval airfields and fleet concentration areas. Conditions of readiness criteria prescribed in enclosure (2) must be used at all Navy and Marine Corps activities and commands. Local area commanders, at their discretion, may set a higher condition of readiness for their activities but may not lower any condition of readiness below that established by regional disaster preparedness officer, emergency manager regional planning agent for natural disasters, or their designated representative. If Commander, Naval Meteorology and Oceanography Command or Marine Corps weather activities warnings are not available, commanders and commanding officers should use warning information disseminated by other agencies to include the National Oceanic and Atmospheric Administration, NWS, U.S. Air Force, and local media. Enclosure (1) contains a list of the DoD and NWS weather warning terminology and criteria.

7. Records Management

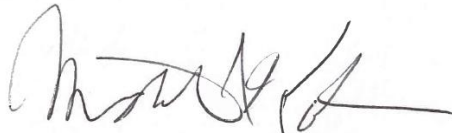
a. Records created as a result of this instruction, regardless of format or media, must be maintained and dispositioned per the records disposition schedules located on the Department of the Navy/Assistant for Administration, Directives and Records Management Division portal page at <https://portal.secnav.navy.mil/orgs/DUSNM/DONAA/DRM/Records-and-Information-Management/Approved%20Record%20Schedules/Forms/AllItems.aspx>.

b. For questions concerning the management of records related to this instruction or the records disposition schedules, please contact the local records manager or the Department of the Navy/Assistant for Administration, Directives and Records Management Division program office.

8. Review and Effective Date. Per OPNAVINST 5215.17A, N2N6E will review this instruction annually around the anniversary of its issuance date to ensure applicability, currency, and consistency with Federal, DoD, Secretary of the Navy, and Navy policy and statutory authority using OPNAV 5215/40 Review of Instruction. This instruction will be in effect for 10 years, unless revised or cancelled in the interim, and will be reissued by the 10-year anniversary date if it

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is still required, unless it meets one of the exceptions in OPNAVINST 5215.17A, paragraph 9. If the instruction is no longer required, it will be processed for cancellation as soon as the need for cancellation is known following the guidance in OPNAV Manual 5215.1 of May 2016.

A handwritten signature in dark ink, appearing to read 'Matthew J. Kohler', with a stylized flourish at the end.

MATTHEW J. KOHLER
Deputy Chief of Naval Operations
for Information Warfare

Releasability and distribution:

This instruction is cleared for public release and is available electronically only via Department of the Navy Issuances Web site, <http://www.secnav.navy.mil/don>

COMMON WEATHER WARNING TERMINOLOGY AND CRITERIA

	<u>Department of the Navy</u>	<u>NWS</u>
<u>Wind Advisories and Warnings</u>		
Wind Advisory	N/A	Sustained winds of 31 to 39 miles per hour (mph) for an hour or more wind gusts of 46 to 57 mph for any duration.
Extreme Wind Warning	N/A	Surface winds of 100 knots (115 mph) or greater associated with non-convective, downslope, derecho (not associated with a tornado), or sustained hurricane winds are expected to occur within 1 hour.
Small Craft Advisory	<u>Sustained winds of 18 to 33 knots are forecast for harbors and inland waters.</u>	Sustained winds of 18 to 33 knots or frequent gusts (duration of 2 or more hours) between 18 and 33 knots or waves of 4 feet or higher.
Airfield Wind Advisory	<u>Sustained winds of 18 to 33 knots or frequent gusts to 25 knots or greater are forecast for airfields and installations.</u>	Sustained wind of 25 to 39 mph (22 to 34 knots) for at least 1 hour of any gusts up to 57 mph (40 to 49 knots) are forecast over land. Issuance is normally site specific.
Gale Warning	<u>Sustained wind of 34 to 47 knots are forecast for harbors, inland waters, ocean areas, airfields and installations.</u>	Sustained winds of 34 knots to 47 knots or frequent gusts (duration of 2 or more hours) between 34 knots and 47 knots.
Storm Warning	<u>Sustained wind of 48 knots or greater are forecasted for harbor, inland waters, ocean areas, airfields and installations.</u>	Sustained winds of 48 knots to 63 knots or frequent gusts (duration of 2 or more hours) of 48 knots to 63 knots.
Hurricane Force Wind Warning	N/A	Sustained winds of 64 knots or greater or frequent gusts (duration of 2 or more hours) of 64 knots or greater.

	<u>Department of the Navy</u>	<u>NWS</u>
<u>Tropical Cyclone Watches/Warnings</u>		
Tropical Storm Watch	N/A	Tropical cyclone containing winds of 34 to 63 knots (39 to 73 mph) or higher poses a possible threat, generally within 48 hours. These winds may be accompanied by storm surge, coastal flooding, and river flooding.
Tropical Storm Warning	N/A	Sustained winds of 34 to 63 knots (39 to 73 mph) or higher associated with a tropical cyclone are expected in 36 hours or less. These winds may be accompanied by storm surge, coastal flooding, and river flooding.
Hurricane Watch	N/A	Tropical cyclone containing winds of 64 knots (74 mph) or higher poses a possible threat, generally within 48 hours. These winds may be accompanied by storm surge, coastal flooding, and river flooding.
Hurricane Warning	N/A	Sustained winds of 64 knots (74 mph) or higher associated with a tropical cyclone are expected in 36 hours or less. These winds may be accompanied by storm surge, coastal flooding, and river flooding. A hurricane warning can remain in effect when dangerously high water or a combination of dangerously high water and exceptionally high waves continue, even though winds may be less than hurricane force.

Tropical Depression	Warning for land, harbor, inland water, and ocean areas for sustained wind of <u>33 knots or less in no specified timeframe.</u>	N/A
Tropical Storm	Warning for land, harbor, inland waters, and ocean areas for sustained wind of <u>34-63 knots in no specified timeframe.</u>	N/A
Hurricane and Typhoon	Warning for land, harbor, inland waters, and ocean areas for sustained wind of <u>64 knots or greater in no specified timeframe.</u>	N/A

	Department of the Navy	NWS
<u>Thunderstorm and Watches/Tornado Warnings</u>		
Thunderstorm Watch (T2)	<u>Destructive wind</u> and accompanying <u>thunderstorms are within 25 nautical miles (NM), or expected within 6 hours.</u> Associated lightning, thunder, torrential rain, hail, severe downbursts, and sudden wind shifts are possible. Take precautions that will permit establishment of an appropriate state of readiness on short notice.	N/A
Thunderstorm Warning	<u>Destructive wind</u> and accompanying <u>thunderstorms are within 10 NM, or expected within 1 hour.</u> Associated lightning, thunder, torrential rain, hail, severe downbursts, and sudden wind shifts are possible. Take immediate safety precautions and shelter.	N/A
Severe Thunderstorm Watch	(Severe Thunderstorms) <u>Severe thunderstorms</u> are defined as having gusts of wind <u>greater than 50 knots, hail with a diameter greater than ¾ inch</u>	Severe Thunderstorm Watch is issued when severe thunderstorms are possible in and near the watch area. It does not mean that they will occur. It only means

	and tornadoes. Destructive wind accompanying severe thunderstorms are <u>within 25 NM, or expected within 6 hours</u> . Associated lightning, thunder, torrential rain, hail, severe downbursts, sudden wind shifts and tornadic activity are possible. Take precautions that will permit establishment of an appropriate state of readiness on short notice.	they are possible. Severe thunderstorms are defined as follows: 1) Winds of 58 mph or higher, and 2) Hail 1 inch in diameter or larger.
Severe Thunderstorm Warning	(Severe Thunderstorms) <u>Severe thunderstorms</u> are defined as having gusts of wind <u>greater than 50 knots</u> , <u>hail with a diameter greater than 3/4 inch</u> and tornadoes. Destructive wind accompanying severe thunderstorms are <u>within 10 NM, or expected within 1 hour</u> . Associated lightning, thunder, torrential rain, hail, severe downbursts, sudden wind shifts and tornadic activity are possible. Take immediate safety precautions and shelter.	Issued when severe thunderstorms are occurring or imminent in the warning area. Severe thunderstorms are defined as follows: 1) Winds of 58 mph or higher, and 2) Hail 1 inch in diameter or larger.
Tornado Watch	N/A	Issued when severe thunderstorms and tornadoes are possible in and near the watch area. It does not mean that they will occur. It only means they are possible.
Tornado Warning	N/A	A tornado warning is issued when a tornado is imminent. When a tornado warning is issued, seek safe shelter immediately.

	Department of the Navy	NWS
<u>Special Weather Advisories/Watches/Warnings</u>		
Winter Weather Advisory	N/A	Issued when 2 to 4 inches of snow, alone or in combination with sleet and freezing rain, is expected to cause a significant inconvenience, but not serious enough to warrant a warning.
Winter Snow Advisory	Up to <u>1 inch of snow in 12 hours</u> ; or up to <u>2 inch in 24 hours</u> .	N/A
Winter Snow Warning	<u>Moderate to heavy snow with freezing precipitation within 6 hours.</u>	N/A
Winter Storm Watch	N/A	Issued when there is the potential for significant and hazardous winter weather within 48 hours. It does not mean that significant and hazardous winter weather will occur. It only means it is <u>possible</u> . Significant and hazardous winter weather is defined as a combination of: 1) 5 inches or more of snow/sleet within a 12-hour period or 7 inches or more of snow/sleet within a 24-hour period 2) Enough ice accumulation to cause damage to trees or power lines and 3) a life threatening or damaging combination of snow and ice accumulation with wind.

Winter Storm Warning	N/A	Issued when a significant combination of hazardous winter weather is occurring or imminent. The winter storm warning covers the same conditions included under winter storm watch.
Blizzard Warning	N/A	The following conditions are occurring or expected within the next 12 to 18 hours. 1) Snow and/or blowing snow reducing visibility to 1/4 mile or less for 3 hours or longer
Freezing Rain Advisory	<u>Freezing Precipitation</u> Advisory - Up to 1/4 inch accumulation.	Ice accumulations of less than 1/4 inch.
Ice Storm Warning	<u>Freezing Precipitation</u> Warning – <u>Greater than 1/4 inch</u> of accumulation.	1/4 inch or more of ice accumulation.
Freeze Watch	N/A	Issued when there is a potential for significant, widespread freezing temperatures within the next 24 to 36 hours.
Freeze Warning	N/A	Issued when significant, widespread freezing temperatures are expected.
Storm Surge Warning	Warning issued for <u>coastal areas, harbor, bays, and inland waters</u> when <u>abnormally high tides</u> are forecast to impact operations. The specific warning height above normal mean high tide will be determined by local area commanders.	N/A
Flash Flood Watch and Warning	N/A	Issued when conditions (i.e. heavy rainfall) are favorable for flash flooding or is imminent occurrence.

Flood Watch/Warning/Advisory	N/A	Issued when conditions are favorable for flooding or is imminent occurrence.
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	<u>Department of the Navy</u>	<u>NWS</u>
<u>Tsunami/Seiche</u>		
Tsunami Warning	N/A	Issued by Pacific Tsunami Warning Center when a potential tsunami with significant widespread inundation is imminent or expected. Warnings alert the public that widespread, dangerous coastal flooding accompanied by powerful currents is possible and may continue for several hours after arrival of the initial wave.

DoD CONDITIONS OF READINESS

1. Conditions of readiness are set using the applicable term indicating wind force, such as setting gale condition. Unless specifically stated otherwise conditions of readiness are based on sustained wind. Tropical cyclone conditions are set only for cyclonic systems of tropical or subtropical origin. Gale and storm conditions are used for wind storms other than tropical cyclones, or for wind outside a tropical cyclone's general circulation.

TROPICAL CYCLONE, SUB-TROPICAL, EXTRA-TROPICAL WIND STORMS (Issued using gale, storm, tropical storm, or hurricane and typhoon to indicate force of destructive wind)	
Condition V	Destructive winds are possible within <u>96 hours</u> .
Condition IV	Trend indicates a possible threat of destructive wind of the force indicated within <u>72 hours</u> . Review hazardous and destructive weather implementation plans, as established by local regulations.
Condition III	Destructive winds of the force indicated are possible within <u>48 hours</u> . Take preliminary precautions.
Condition II	Destructive winds of the force indicated are anticipated within <u>24 hours</u> . Take precautions that will permit establishment of an appropriate state of readiness on short notice.
Condition I	Destructive wind of the force indicated are occurring or anticipated within <u>12 hours</u> . Take final precautions as prescribed.

2. Further amplification of the basic conditions prescribed in paragraph 1 of this enclosure is authorized to facilitate conditions of readiness within local commands. The previous setting of a lower condition of readiness is not a prerequisite for setting any of the conditions. The forecast wind values may be different than the threshold values in enclosure (1) to reflect best possible forecast information. Examples are below in subparagraphs 2a through 2c.

a. "Set Gale Condition II. Destructive wind of 35 to 40 knots is anticipated within 24 hours."

- b. “Set Tropical Storm Condition III. Destructive wind of 50 knots or greater is possible within 48 hours.”
- c. “Set Hurricane Condition I. Destructive wind of 80 knots or greater is in anticipated in 12 hours.”